Claims

1. A method of determining the presence or severity of ischaemia in a tissue, the method comprising the steps of inserting a pH sensor into the tissue, and measuring the intracompartmental pH in the tissue.

2. A method as claimed in claim 1, wherein the tissue is muscle.

3. A method as claimed in any preceding claim, wherein a second probe is used to measure the intracompartmental pressure in the tissue.

4. A method as claimed in any preceding claim, wherein the or each sensor is mounted on a respective catheter.

5. A method as claimed in any preceding claim, wherein the or each catheter is inserted into the muscle through a respective cannula.

6. A method as claimed in any preceding claim, wherein the or each cannula is inserted into skeletal muscle in an orientation that is generally parallel to the muscle fibres.

7. A method as claimed in any preceding claim, wherein the tissue is adjacent to a bone fracture, and wherein the or each cannula is

inserted into the muscle adjacent to, but not communicating with, the fracture site.

8. A method as claimed in any preceding claim, wherein the reading from the or each sensor is compared with a calibrated scale to determine the extent of tissue damage.

9. A method as claimed in any preceding claim, wherein the ischaemia involves Acute Compartment Syndrome.

10. A method as claimed in any preceding claim, wherein the ischaemia involves a transplant or tissue flap.

11. A method as claimed in any preceding claim, wherein the ischaemia involves sceptic shock, neurogenic shock, cardiogenic shock or hypovolaemic shock.

12. A method as claimed in any preceding claim, wherein the ischaemia involves vascular surgery.

13. Apparatus for determining the presence or severity of ischaemia, the apparatus having a pH sensor adapted to be inserted into a muscle.

14. Apparatus as claimed in claim 13, wherein the pH sensor is mounted on a catheter.

15. Apparatus as claimed in claim 14, wherein the catheter is glass-tipped.

16. Apparatus as claimed in claim 14, wherein the catheter is antimony-tipped.

17. Apparatus as claimed in any one of claims 12-16, wherein the apparatus also includes a pressure sensor coupled to a pressure recording device.

18. Apparatus as claimed in claim 17, wherein the pH sensor and the pressure sensor are mounted on the same catheter.

19. Apparatus as claimed in any one of claims 12-18, wherein the pH sensor is connected to a pH recorder.

20. The use of a pH sensor device for the determination of the presence or the severity of ischaemia and typically Acute Compartment Syndrome.

21. The use of a pH sensor device according to claim 20, wherein the ischaemia involves Acute Compartment Syndrome.

22. A method of determining information concerning the condition of soft tissue, the method comprising the steps of inserting a pH sensor

into the soft tissue and measuring the pH in the tissue.

23. A method of measuring intracompartmental pH, including the step of inserting a pH sensor directly into a muscle.